CLAIMS

1. A method of selecting an antenna in an antenna diversity system, comprising a station having at least two antennas making received signal quality measurements for at least one of said at least two antennas during at least a portion of a time division time frame in which downlink signals are addressed specifically to another station and selecting one of the said at least two antennas providing the best (or better) quality of signal reception for use.

2. A method as claimed in claim 1, characterised in that the diversity measurements are made over the duration of at least one data packet.

3. A method as claimed in claim 1, characterised in that every time frame is monitored,

4. A method as claimed in claim 1, characterised by assessing the changes occurring in the radio transmission and by altering the frequency of monitoring of the time frames accordingly.

5. A method as claimed in claim 1, characterised in that signal quality measurements for another of said at least two antennas are made when signals are addressed specifically to the station effecting signal monitoring.

6. A wireless local area network comprising a primary station having transceiving means for transmitting signals on downlink and receiving signals on an uplink and at least one secondary station having transceiving means for receiving downlink signals and for transmitting uplink signals, the downlink and uplink signals being transmitted in accordance with a time division protocol comprising successive time frames, the at least one secondary station having at least two antennas and means for selecting one of

said at least two antennas in response to antenna diversity measurements made during at least a portion of a time division time frame in which downlink signals are not addressed specifically to the secondary station.

7. A wireless local area network as claimed in claim 6, characterised in that the at least one secondary station has means for determining from indications in the downlink signals when downlink message signals are to be sent to secondary stations other than the one effecting the antenna diversity measurements, means for determining from the indications when there will be in the at least one time frame a time period of sufficient duration for the at least one secondary station to effect signal quality measurements, and means for comparing the quality of signal reception by each of the at least two antennas and for selecting one of the said at least two antennas providing the best (or better) quality of signal reception.

8. A secondary station for use in a wireless local area network comprising a primary station having transceiving means for transmitting signals on a downlink and receiving signals on an uplink, the secondary station including transceiving means for receiving downlink signals from the primary station and for transmitting uplink signals, the downlink and uplink signals being transmitted in accordance with a time division protocol comprising successive time frames, the secondary station further comprising at least two antennas and means for selecting one of said at least two antennas in response to antenna diversity measurements made during at least a portion of a time division time frame in which downlink signals are not addressed specifically to the secondary station.

9. A secondary station as claimed in claim 8, characterised in that there is provided means for determining from indications in the downlink signals when downlink message signals are to be sent to secondary stations other than the one effecting the antenna diversity measurements, means for determining from the indications when there will be in the at least one time

frame a time period of sufficient duration for signal quality measurements to be effected, and means for comparing the quality of signal reception by each of the at least two antennas and selecting means for selecting one of the said at least two antennas providing the best (or better) quality of signal reception.